

What is claimed is:

1. A method of manufacturing a ceramic film, comprising:
providing a treatment target in which a raw material body including a complex
5 oxide is applied to a substrate; and
crystallizing the raw material body by holding the treatment target in a chamber
and subjecting the treatment target to a heat treatment at a predetermined pressure in a
gas which is pressurized at two atmospheres or more and includes at least an oxidizing
gas,
10 wherein the gas is supplied to the chamber after being heated to a predetermined
temperature in advance.
2. The method of manufacturing a ceramic film as defined in claim 1, wherein
the heat treatment is performed by using a rapid thermal annealing method.
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3. The method of manufacturing a ceramic film as defined in claim 1, wherein a
capacity of the chamber is 100 times or less of a volume of the substrate.
4. The method of manufacturing a ceramic film as defined in claim 1, wherein
20 the treatment target is heated to the predetermined temperature at a temperature rise rate
of 50°C/sec or more.
5. The method of manufacturing a ceramic film as defined in claim 1, wherein
pressure of the gas in the chamber is increased to the predetermined pressure of two
25 atmospheres or more within 60 seconds.
6. The method of manufacturing a ceramic film as defined in claim 1, wherein

the gas is heated in advance to the predetermined temperature of 200°C or less.

7. A pressure heat treatment device which rapidly heats a treatment target by supplying a gas including at least an oxidizing gas to a chamber, the pressure heat
5 treatment device comprising:

the chamber;

a holder which holds the treatment target in the chamber;

a gas supply mechanism which raises a temperature of the gas to a
predetermined temperature in advance and supplies the gas to the chamber;

10 a pressure adjustment mechanism which maintains pressure of the gas in the chamber at a predetermined pressure of two atmospheres or more; and

a heating mechanism which heats the treatment target held by the holder.

8. The pressure heat treatment device as defined in claim 7, wherein a capacity
15 of the chamber is 100 times or less of a volume of a substrate.